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POWERS OF DISTANCES TO LOWER DIMENSIONAL SETS AS MUCKENHOUP WEIGHTS

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Abstract. Let (X, d, μ) be an Ahlfors metric measure space. We give sufficient conditions on a closed set $F \subseteq X$ and on a real number β in such a way that $d(x, F)^\beta$ becomes a Muckenhoupt weight. We give also some illustrations to regularity of solutions of partial differential equations and regarding some classical fractals.